1. A multilayer pigment based on platelet-shaped metal pigments and produced by the exclusive wet-chemical coating of the metal pigments in a one-pot process wherein the metal pigments, optionally after prior passivation, are initially suspended in water and coated with an amorphous glassy layer at pH 6-11 and then with one or more metal oxides or metal oxide mixtures at a pH < 4.

2. A multilayer pigment according to claim 1, wherein the amorphous glassy layer comprises SiO_2, B_2O_3, phosphate, or a mixture thereof.

3. A multilayer pigment according to claim 1, wherein the metal oxide layer or the layer comprising a metal oxide mixture comprises titanium dioxide, iron oxide, silicon dioxide, bismuth oxychloride, zirconium oxide, tin oxide, zinc oxide, titanium suboxide, iron oxyhydrate and/or chromium oxide.

4. A multilayer pigment according to claim 1, wherein up to 12 layers of metal oxide or metal oxide mixtures have been applied to the metal pigment.

5. A multilayer pigment according to claim 1, wherein the metal pigments are aluminum platelets.

6. A multilayer pigment according to claim 5, wherein the aluminum platelets have been coated with an amorphous SiO_2 layer and then with a TiO_2 and/or Fe_2O_3 layer.

7. A multilayer pigment according to claim 1, wherein the metal pigments have been coated with an amorphous SiO_2 layer and then with an SnO_2, TiO_2 and/or Fe_2O_3 layer.

8. A multilayer pigment according to claim 1, wherein the metal pigments have been coated with an amorphous SiO_2 layer and then with an SnO_2, TiO_2, SiO_2, SnO_2 and TiO_2 layer in alternating fashion.

9. A multilayer pigment according to claim 1, wherein the metal pigments have been coated with an amorphous SiO_2 layer and then with an SnO_2, Fe_2O_3, SiO_2, SnO_2 and Fe_2O_3 layer in alternating fashion.

10. A paint, varnish, printing ink, plastic, ceramic material or cosmetic formulation comprising a multilayer pigment according to claim 1.

11. A laser marked plastic or a pigment blend comprising multilayer pigments according to claim 1.